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Nicaragua: Oil Problems and Prospects

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An Intelligence Assessment

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Nicaragua: Oil Problems and Prospects

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An Intelligence Assessment

This paper was prepared by
Office of African and Latin American Analysis, and
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Comments and queries are welcome and may be directed to the Chief, Middle American-Caribbean Division, ALA

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Nicaragua: Oil Problems and Prospects

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Key Judgments

Information available as of 15 April 1985 was used in this report.

Nicaragua's dependence on crude oil imports and susceptibility to supply disruptions have resulted in serious fuel shortages over the past year. Managua faces the prospect of further, potentially critical shortfalls even as its dependence on Soviet deliveries and Cuban technical expertise is likely to continue to grow.

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Nicaragua has no indigenous petroleum resources and its one refinery can process only 80 percent of the country's oil requirements. The Sandinistas have been unable to manage fuel supply smoothly since the withdrawal of Nicaragua's two traditional oil suppliers—Venezuela in 1982 for overdue debt payments and Mexico earlier this year to give greater balance to its regional policies. In February, the refinery was forced to close for a month for lack of crude, creating the worst energy crisis in recent memory, according to US Embassy reporting.

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With Venezuela out of the supply picture and Mexico cutting back from peak 1983 levels, the Soviets matched Mexico as Nicaragua's primary oil supplier last year, providing some 6,000 barrels per day (b/d). Moreover, in a sharp departure from typical commercial policy, Moscow appears to have permitted the financially pressed Sandinistas to run arrears on their oil payments. We believe the Soviets have tried to reduce costs associated with deliveries to Nicaragua by attempting to convince traditional suppliers to resume or increase shipments, by trying to work out new oil swap deals, and by attempting to use Cuba as a broker. These efforts have had only limited success, and, consequently, we expect the Soviets will remain the Sandinistas' principal suppliers for at least the next several years.

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Even if the Soviets supplied all of Nicaragua's oil needs—currently some 14,000 b/d—this would amount to less than 0.5 percent of the USSR's total net oil exports. Given the political and military importance of adequate fuel supplies for the Sandinistas, we believe the USSR will continue to provide Nicaragua with the bulk of its oil needs and allow Managua a very lenient repayment schedule. Even with such a commitment, however, Moscow's logistic problems in sending crude oil directly to Nicaragua may create occasional fuel shortages for the Sandinistas.

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Even if there are no major petroleum import problems, we believe Nicaragua will suffer periodic fuel shortages throughout 1985 because of the poor condition of its refining and distribution system.

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the aging pipeline and tanker truck transportation

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network has no backup, and any significant system failure will result in extended supply disruptions. In addition, Corinto—the only port capable of handling large tanker loads of imported refined products—can store one month's supply of the products needed to satisfy Nicaragua's demand. The necessity of moving oil from the refinery on the west coast to the Caribbean coast also places an additional burden on the country's limited number of tanker trucks.

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Keeping the refinery operative will also be a major challenge for the Sandinistas. Because Managua has withheld all profits from the plant's foreign owners since 1981, the owners have not maintained the refinery. Lack of adequate repairs since early 1981 has reduced the refinery's already insufficient capacity, forcing the Sandinistas to rely increasingly on foreign suppliers to meet their refined product demand.

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With the Sandinistas' announced goal to eliminate the counterinsurgency this year, we expect military priorities to further divert oil supplies from the civilian sector. Currently, the Army is allocated the bulk of the petroleum used by government agencies, which is normally 80 percent of available supplies. As a result of the diversion, industrial and agricultural output will continue to decline and erode living standards further.

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If mechanical and crude supply problems—or gross Sandinista mismanagement—should force the refinery to shut down for two months or longer, we predict that activity in the industrial sector of Nicaragua's economy as well as selected portions of agriculture would be sharply curtailed. An extended petroleum shortage would virtually eliminate public transportation, disrupt food distribution, and further weaken public confidence in the ability of the Sandinista leadership. It would also indirectly affect Managua's already precarious financial condition. Logistic problems would also develop in the military. In the event of an extended supply disruption, we believe that the Sandinistas' Soviet and Cuban allies would have to greatly increase aid in the form of repairs to the supply system and direct product imports to keep the military functioning at minimal operational levels.

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Scope Note

This assessment focuses on a single aspect of the deteriorating situation in Nicaragua: the economy's vulnerability to oil supply and distribution interruptions. The assessment analyzes Nicaragua's oil import requirements, chronicles the Sandinistas' growing dependence on the Soviet Union, and examines deficiencies in the petroleum infrastructure.

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Contents

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Nicaragua: Oil Problems and Prospects

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Introduction

Nicaragua's oil supply problems have worsened in the past year. After experiencing five serious oil shortages since mid-1984, a lack of crude forced Nicaragua to close its only refinery in February, marking the worst oil crisis in 20 years, (see figure 1). The US Embassy reports public transportation was nearly at a standstill during late February and early March after almost all gas stations were shut down and hundreds of cars were abandoned. The absence of petroleum also disrupted industry and agriculture: there was no oil for farm and other types of machinery and no fuel to transport workers during the critical final phase of Nicaragua's coffee and cotton harvest. Based on press and US Embassy reports on the severity of the shortages, we believe the military also experienced spot shortages, even though its operational activity levels suggest it was largely shielded from the supply disruptions.

This paper analyzes Nicaragua's petroleum requirements and examines supply relationships with other Latin American countries and the USSR. It also discusses petroleum infrastructure problems, including distribution and refining capabilities, and the impact of oil supply difficulties on Nicaragua's economy this year.

Petroleum Requirements

Nicaragua has no indigenous crude oil resources and its one refinery is capable of processing only 80 percent of the country's petroleum product needs. As a result, Managua imports all of its crude oil and some additional petroleum products, including transportation fuels, kerosene, and petrochemicals. Because petroleum product reserves are low and indigenous storage capacity is limited—approximately three months for product and less than two months for crude, based on our estimates of overall demand for product and the physical size of total storage capacity—Nicaragua depends on frequent deliveries of crude and petroleum products.

A review of trade statistics, government publications, and industry reporting suggests that during the 1970s, Nicaragua's demand for crude oil and petroleum products increased steadily from around 10,600 barrels per day (b/d) in 1971 to about 15,000 b/d in 1977. Since then apparent consumption has remained relatively constant at an average rate of 14,000 b/d. Reduced economic activity and private-sector rationing have held consumption growth in check.

Managua's oil import needs translate into an annual oil import bill of about $150 million at current prices. The Sandinistas' actual hard currency costs, however, have been greatly cushioned by concessional financing from first its Latin American and later its Soviet suppliers. Under the terms of the San Jose Accord, beginning in August 1980, Mexico and Venezuela offered a stable supply of subsidized crude oil to all Central American and Caribbean countries, including Nicaragua. The agreement, as announced by Mexico City and Caracas, provided below market interest rate loans to cover 20 percent of any oil purchase. In Managua's case, Mexico decided to sweeten the pot by extending the offer of low interest rate terms to all the oil it delivered to the Sandinistas. Despite this favorable treatment, problems began to develop. In mid-1982 Venezuela stopped deliveries under this program because the Sandinistas had fallen behind in their payment obligations.

Even though Mexico received only occasional token payments, it initially increased deliveries to take up the slack for what we believe were political reasons. virtually all of Nicaragua's oil requirements from mid-1982 to late 1983 were covered by Mexico.

Mexico City's position changed in early 1984 when, according to Embassy reporting, it ordered an audit of bilateral accounts and began requiring, for the first time, partial payments on all oil deliveries. We believe

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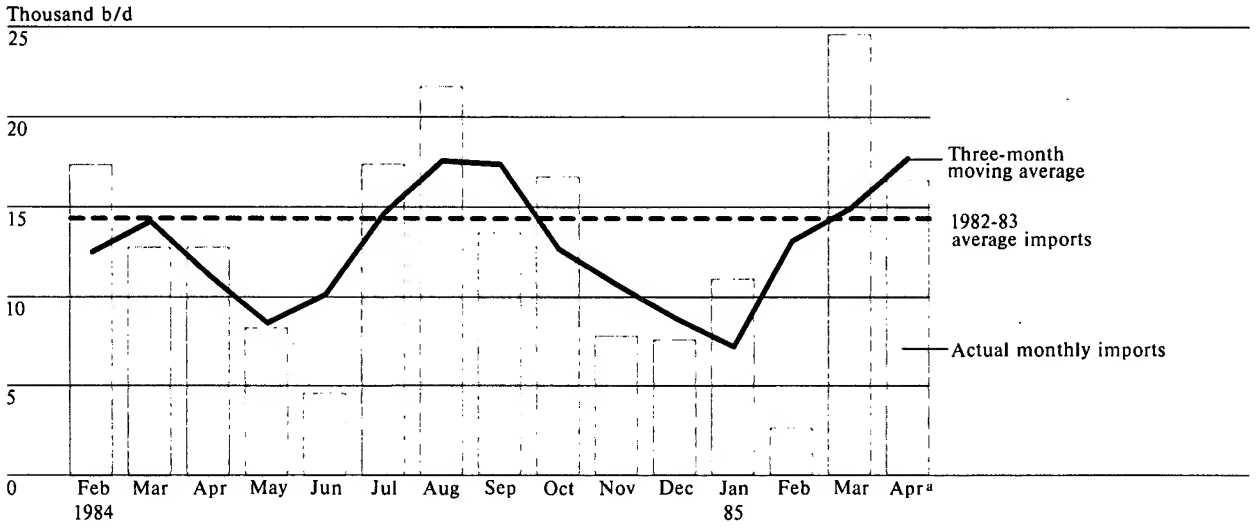
Figure 1
Nicaragua: Oil Imports, 1984-85



[a] Estimated.

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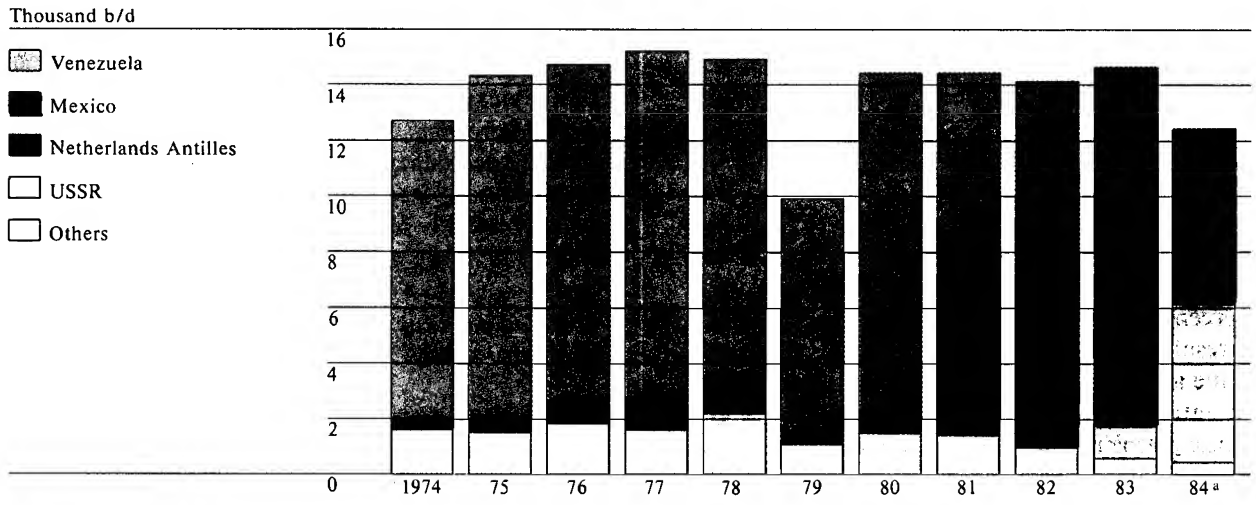
Figure 2
Nicaraguan Imports of Crude Oil and Petroleum Products by Supplier, 1974-84



[a] Estimated.

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Mexico intended this shift to give more balance to its Central American policies, to encourage Managua to moderate its hardline position on regional issues, and to respond to increasingly vocal conservative elements in Mexico as well as concerns raised abroad. As Mexico moved to treat Nicaragua like any other customer, deliveries became less frequent and, based on press reporting, its shipments of crude oil and refined products dropped from an average of nearly 13,000 b/d in 1983 to about 6,000 b/d in 1984, almost 50 percent of Nicaragua's oil imports. So far this year, Mexico is continuing to supply some oil to Nicaragua, we believe, to maintain its influence and persuade Managua to retain some measure of political moderation. To downplay political goals, however, Mexico City has publicly emphasized that it will not resume its role as a long-term oil supplier until Managua pays the more than $500 million it owes for past shipments.

Soviets Take Up the Slack

As Mexico's role as oil supplier began to decline, the USSR stepped in to become a major actor in providing oil to the Sandinista regime. The first observed Soviet petroleum shipments to Nicaragua occurred in December 1983. Based on cargo deliveries, we calculate that, during 1984, Soviet oil shipments slightly outpaced those from Mexico (see figure 2). For the first four months of 1985, the USSR has directly provided over two-thirds of Nicaragua's oil imports and, indirectly, about 10 percent through Cuba.

In addition to assuming responsibility for the bulk of Nicaragua's oil needs, there are numerous signs that Moscow—in a marked departure from its typical commercial policy—has permitted Nicaraguan oil payments to lapse. For example, although we do not know the details of oil sales terms, Moscow has to date required only token payment from Nicaragua in the form of commodities such as cotton, coffee, and other farm products. The negligible value of the countertrade shipments suggests that there is a large grant element involved in Moscow's oil shipments. In view of Nicaragua's precarious financial position, the Soviets almost certainly could not have entered into this deal expecting that the Sandinistas would be able to make any significant payment for years to come. From Nicaragua's standpoint, the Soviets' willingness to supply petroleum on generous payment terms has been critical to Managua, because it has enabled the Sandinistas to conserve scarce hard currency for such essential imports as foodstuffs.[1]

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Looking To Share the Burden

Even though the burden on the Soviets is small—at world prices, 1984 Soviet deliveries would have been valued at $60 million out of total hard currency oil export earnings of around $15 billion—Moscow is apparently searching for alternate or lower-cost suppliers to Nicaragua.

Cuba

Under a Soviet-Cuban-Nicaraguan trilateral accord signed in 1983, Havana assumed responsibility for supplying Managua with some petroleum products purchased from Caribbean sources in 1984, Last fall, Cuba purchased $3 million worth of oil products from Western traders in Curacao for delivery to Nicaragua. To cover Havana's costs, the

[1] Nicaragua's hard currency levels were at an alltime low in February, when its Minister of the Interior admitted that dollar reserves were virtually nil.

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Soviets diverted to Cuba a tanker of crude oil, originally destined for Nicaragua. At world prices, the Soviet crude was worth $3-4 million more than Cuba's product purchases from Curacao, and it is possible that the balance may have been used to arrange additional petroleum deliveries to Nicaragua via Cuba. Havana has recently purchased two crude shipments from Mexico, which may allow for somewhat higher shipments of Cuban refined products to Nicaragua despite a recent reduction in crude deliveries to Cuba from the USSR. As a temporary expedient—particularly when the Managua refinery faced shutdown—Moscow also shifted oil deliveries directly from Havana to Managua.

Other Regional Suppliers

To provide the amounts of oil Managua requires and save transportation costs, Moscow has also attempted to get other regional sources to supply Nicaragua, in return for Soviet deliveries elsewhere, similar to a quadrilateral oil swap arrangement it uses to help supply Cuba. Under that agreement, Moscow ships to one of Venezuela's West European customers an amount of oil equal to that which Caracas provides Havana. In early April, Venezuela agreed to double the amount of crude under its quadrilateral agreement for Cuba, with their standard clause that the crude could not be diverted to Nicaragua. But the clause does not prevent products refined from the crude to be shipped to Managua.

The Soviets have also had little success in obtaining oil for Nicaragua from Ecuador. In December 1984 the Soviets believed they had made an arrangement, in which Ecuador would supply the bulk of the Sandinistas' oil needs in 1985. In return, the Soviets would deliver crude for resale in Europe on Ecuador's account. Ecuador's first shipment under the agreement was canceled just before its scheduled departure in February, however, after Quito vetoed the sale

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When the Ecuadorean deal fell through, Managua and Moscow were left to scramble for alternatives to cover oil needs for 1985. The delay, however, forced the Nicaraguans to deplete their reserves and close their refinery. The Cubans sent a shipment of refined products to alleviate growing shortages, before a Soviet crude delivery in early March reopened the refinery.

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Petroleum Infrastructure Deficiencies

In addition to coping with delivery uncertainties, Nicaragua has also had to deal with a petroleum infrastructure plagued by a limited distribution system, inefficient refining capabilities, and a lack of skilled managers. because of financial constraints and mismanagement, the Sandinistas are not properly maintaining plants, equipment, and transport vehicles.

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Transportation and Storage

The petroleum distribution system (see figure 3) has been particularly susceptible to disruption. the aging system has no backup, and any failure results in substantial supply disruptions. For example, all crude enters at Puerto Sandino and is piped 56 kilometers to the refinery in Managua. The crude storage tanks located at both ends of

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Figure 3
POL Entry Ports and Transshipment Routes

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the pipeline can hold less than two months of the refinery's crude requirements, according to Embassy sources. No ready alternative to the pipeline exists, although the pipeline is still serviceable, it has not been adequately maintained in recent years and its pumping station needs refurbishing.

Moreover, when the refinery is forced to shut down for repairs or lack of crude—as it has been five times in the past year for periods ranging two to three weeks, according to Embassy reporting—problems are compounded. Corinto, the only port that can handle large tanker loads of refined oil products, can only store a fraction of the products needed to satisfy Nicaraguan demands. Corinto's petroleum storage facilities were designed to supplement the refinery by allowing imports of specialty products and providing some additional distribution capacity. The Corinto facilities can hold approximately one month's supply of refined product, which sharply limits the number of ships that can offload during any particular month. In addition, during periods when Corinto serves as Nicaragua's major petroleum product distribution point, its remote location limits the extent to which trucks can distribute petroleum products around the country.

To address Nicaragua's crude storage problem, the Cubans and Soviets are constructing additional storage tanks east of Puerto Sandino, Two prefabricated 30,000 barrel storage tanks are under construction near the crude oil pipeline connecting the port with the refinery at Managua, and workers have cleared space for at least five more tanks We estimate that the construction materials observed at the site and on a quay at Corinto are probably sufficient to build 15 tanks. If all the tanks were used for crude oil, they would about double Nicaragua's crude storage capacity— providing about 45 days' extra supply and reducing the vulnerability to crude disruptions. While the location of the tanks points to their intended use to improve crude oil supply flexibility, they could also be used for petroleum product storage if the need arose.

Another logistic problem involves moving petroleum products to Nicaragua's east coast. 25X1
fuel is usually 25X1
trucked from the refinery to the interior port of Rama 25X1
and then shipped by barge to the Caribbean ports of El Bluff, Puerto Isabel, and Puerto Cabezas, which serve as regional distribution points. From there fuel 25X1
is supplied to the fishing industry, military installations, and Nicaragua's mining sector. 25X1
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Nicaragua also 25X1
has one small tanker that makes regular deliveries of petroleum from Corinto through the Panama Canal to the east coast, and also makes small shipments of imports directly from Cuba, Panama, and Aruba, according to Embassy sources. 25X1

Refinery Deterioration

Nicaragua's refinery 25X1
operates well below capacity. Before the latest shutdown on 13 February, crude processing was averaging 25X1
some 5,000 b/d below its designed capacity of 15,000 b/d (see figure 6 at end of text). According to industry publications, the refinery is owned and maintained by Esso International (Exxon). Even though the Embassy 25X1
reports that the refinery is now closely regulated by 25X1
Petronic, the Nicaraguan state oil company, Esso reportedly still provides top management and technical advice. Because the Sandinistas have refused to 25X1
allow the owner to repatriate its share of profits since 25X1
mid-1981, however, the company has been reluctant to maintain the refinery and has made no improvements or capital investment. The Sandinistas have made only minimal repairs vital to keeping the plant operative, 25X1
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Indeed, Esso has tried to cut its losses by selling the facility to the government. 25X1
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however, the Sandinistas have placed the equivalent

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of over $30 million in local currency of the company's unrepatriated profits into escrow accounts. The Sandinistas also postponed sales negotiations several times in recent months in an effort to delay further demands by Esso for back payments. if a sales agreement were reached, the Sandinistas would require outside assistance to run the refinery; Alternatively, the Sandinistas could hire technical services from the present owners. Although third-round negotiations with the owners are under way, the Nicaraguans' critical financial situation precludes them from making more than nominal payment for the plant,

Nicaragua's Oil Situation in 1985

Nicaragua probably will suffer periodic disruptions of oil supplies throughout the remainder of 1985 similar to those of February-March. We expect the current state of disrepair of the refinery, pipelines, and transportation system to disrupt occasionally the processing and distribution of petroleum even if there are no unexpected crude import problems.

In our view, the economic impact of fuel shortages on Nicaraguan industry and agriculture will increase over time even without unusual disruptions. With Managua's announced goal to eliminate the counterinsurgency this year, we expect military priorities to further divert oil supplies from the civilian sector. As a result, industrial and agricultural output will continue to decline and erode living standards further.

If, through gross Sandinista mismanagement, mechanical failure forced the refinery to close down for two months or more, the consequences to the Nicaraguan economy would be disastrous. An extended petroleum shortage would virtually eliminate public transportation, disrupting food distribution and further weakening public confidence in the ability of the Sandinista leadership. It would also indirectly affect Managua's already precarious financial condition.

Any dropoff in oil product deliveries to the agricultural or industrial sector would only further limit exports and thus hard currency earnings. Balancing these needs against military requirements would only generate additional stress on both government decision-makers and an already shaky distribution network (see appendix A).

In the case of an extended shutdown at the refinery, the Sandinistas would be forced to find alternative ways of bringing in refined products or increasing capacity at Corinto. Assuming the new storage capacity at Puerto Sandino remained dedicated to crude oil, the fastest and least complicated option for bolstering product storage, in our assessment, would be at Corinto. Even so, for Corinto to handle all petroleum imports, the Sandinistas would need at least to double oil product storage capacity, improve road maintenance, and import approximately 100 tanker trucks; the trucks alone would cost nearly $4 million. If financial and technical support were given by the Soviets and Cubans, industry experience indicates that the process could be completed in as little as two to three months. Based on Managua's track record with the storage tanks at Puerto Sandino, however, progress could be much slower. Another relatively low cost option would be to refit and rededicate the Puerto Sandino storage area to petroleum products. Logistic problems would, of course, exist. Truck loading facilities would have to be built, roads substantially improved, and the like. Moreover, other complications could arise if the tanks were full of crude at the time of a refinery shutdown.

The Nicaraguans would have other options beyond increasing storage capacity. Managua could try to use pipelines to ship oil products, by fully converting the Puerto Sandino complex to handle refined products. This would be feasible but expensive, Hydraulic problems associated with low viscosity of refined products and the crude pipeline's diameter would likely require the Sandinistas to build a new pipeline to Managua. In this case,

to enable the port to receive, store, and pump most refined products to Managua, we estimate the conversion would take three to five months at a minimum and cost $5-10 million. Even then, some specialty products would still have to offload at Corinto. If on the off chance that Managua could somehow successfully retool the crude pipeline to transport refined products, it would still require a few months and several million dollars. Aside from the technical difficulties involved, the Sandinistas would have to spend more time and money reversing the process once the refinery was reopened. Regardless of the option chosen, the Sandinistas would need extensive technical and financial assistance from their allies.

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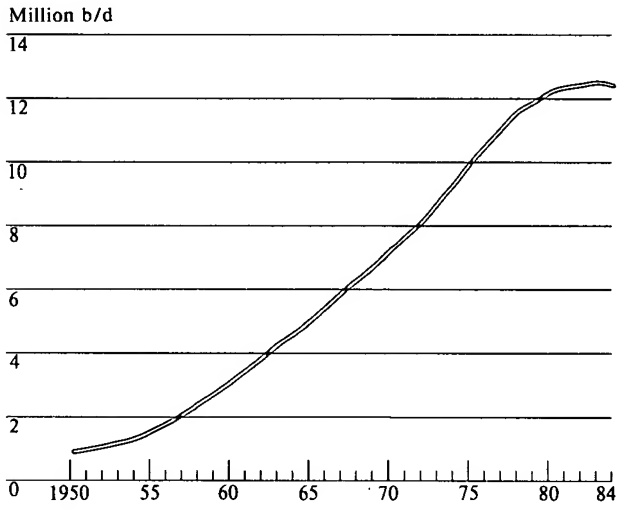
Figure 5
USSR: Oil Production 1950-84



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Long-Range Outlook for Soviet Supplies

If given the choice, we doubt the Soviets, over the long run, would want the burden of supplying oil to such virtually nonpaying customers as Nicaragua. In our view, the recent decline in the USSR's oil production probably makes the relatively small cost of supplying oil to Nicaragua appear slightly more worrisome to Soviet planners.[2] In the past, the Soviets have compensated for lower world oil prices by boosting the quantity of petroleum sold for hard currency; such sales account for about half the USSR's hard currency trade earnings. The Soviets experienced problems exporting oil during the first quarter because the harsh winter weather increased domestic consumption to an unexpected level. The USSR may well see another decline in overall production this year with a concomitant drop in hard currency oil earnings. Soviet economic planners may fear that the recent production decline presages a long-term stagnation or drop (see figure 5), and may therefore become more reluctant to extend oil commitments to soft-currency customers or those that, like Nicaragua, have made only token payments. The USSR's tough choices are compounded by the large amounts of oil committed to Eastern Europe and Cuba.

Nevertheless, even though Soviet economic planners probably will be anxious to avoid a large, multiyear commitment to Nicaragua, in our judgment the political imperative of maintaining the Sandinista regime in power will overrule economic considerations. Even if Moscow had to make up for all the oil Nicaragua consumed in its peak year—15,000 b/d in 1977—this amount would represent less than 0.5 percent of the USSR's total net oil exports and roughly 7 percent of what Moscow currently provides to Cuba.

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In our view, the Soviet oil deliveries will continue to constitute the most effective direct support that Moscow has available for Managua. An adequate supply of petroleum is critical for military operations needed to keep the Sandinistas in power. At the same time, the Sandinistas' arrangements to pay for oil with future commodity swaps conserves scarce foreign exchange needed for imports of Western spare parts and equipment. Moreover, the Kremlin can reap

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propaganda dividends and strengthen its credentials as a reliable ally by advertising its role in helping the Nicaraguans overcome the adversities that Managua claims are caused by US aggression; for example, President Ortega used Ecuador's suspension of its crude oil contract to attack the United States and praise the USSR's efforts in easing the country's oil shortages.

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On balance, we believe that, despite the financial costs, the USSR will continue to provide Nicaragua with the bulk of its oil needs and allow Managua a very lenient payment schedule to try to help the Sandinistas get through the next few difficult years. At the same time, we expect Moscow to redouble efforts to entice Venezuela and Ecuador into oil swap deals and encourage Mexico to step up its support.

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Appendix A

The Military's Thirst for Oil and Impact on the Civilian Sector

The massive expansion and modernization of Sandinista military power has required ever larger allotments of petroleum resources. Before the revolution, based on our analysis of average fuel load factors, military defense forces burned a little less than 500 barrels of diesel fuel and gasoline each day. Since then the military has expanded nearly 10 times and its use of oil products has grown even faster.

we estimate the military is now burning at least 5,000 barrels of petroleum products each day.

The Sandinista military has jealously defended its increased fuel allocation. Experience during the past year or so indicates that 80 percent of available fuel is supplied to the government, with about half going directly to the military to keep its equipment operational. In contrast, we estimate that before the revolution the government accounted for only about one-fourth of fuel demand with less than one-fourth of that going to the military.

To assure steady fuel supplies, the military has been authorized priority drawings on civilian reserves and the Sandinistas have substantially augmented military reserve facilities. During the past two years, the Sandinistas have ordered some 200 gasoline stations throughout the country to dedicate, on a priority basis, part of their civilian storage for military use. Under the system, only designated Sandinista officials have the authority to release petroleum supplies after station reserves fall to certain minimum levels. The military makes frequent inspections to make sure their portion has not been used. during the last few years, the Sandinistas have deployed 600 new 350-barrel diesel and gasoline storage tanks mainly in northern Nicaragua. We estimate that this extra military storage capacity alone is enough to support normal military operations for about 40 days and sustain surge activities for about half that time.

Despite the military's priority, it has not been able to shield itself completely from the recent fuel shortages.

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Military fuel requirements will almost surely grow further for at least the next year as the announced military buildup continues. Some 450 new trucks are scheduled to arrive in Corinto from Eastern Europe during late April alone. Despite regional condemnation for their arms buildup, the Sandinistas continue to call for the rapid addition of at least 20,000 men and more advanced weaponry to their military machine. Existing oil constraints, however, are a limiting factor in their ability to field much more equipment. In our estimation, to support the larger military the Sandinistas are calling for would require further diversion of fuel from the private sector, even more active conservation and rationing techniques, and increased petroleum imports.

The Impact of Military Diversions on the Civilian Sector

Redirection of petroleum supplies already has hit hard on the economy. We believe that in pre-Sandinista times, the private sector used almost three-fourths of all petroleum and demand centered on use in manufacturing, mining, and agriculture. We estimate that the private-sector share has now plummeted to just one-fifth or less. Part of the enormous falloff is explained by wide-ranging nationalizations—all of mining and more than one-third of manufacturing and agriculture were taken over by the Sandinistas following the revolution—but even more by reduced

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The Nicaraguan Military Buildup

Number of units
(except where noted)

	Total Forces [a] *(number of persons)*	Trucks and Jeeps	Helicopters	Tanks	Other Armored Vehicles
19 July 1979	6,600	500	8	3	31
15 April 1985	65,000	4,000	25	150	200

[a] Includes active duty and mobilized militia/reserves.

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private-sector allotments caused by military requirements. The curtailment of civilian allocations, in both the government and private sectors, has:

- Caused an alarming decrease in industrial production, as reported by the US Embassy.
- Undercut the recent key coffee and cotton harvests, according to various press reports.
- Forced the government in March to order a permanent cutback on the number of pages newspapers could print and banned Sunday editions, according to Embassy sources.
- Cut down on the electricity allocated for industrial and household uses; for the past several years the US Embassy has recorded daily scheduled power outages throughout the country.
- Made jet fuel and bunker unavailable, requiring incoming planes and ships to bring enough fuel for return trips, according to several sources.

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The political ramifications of this resource diversion have been extensive. Fuel shortages are certainly one of the many reasons behind the demise of Nicaragua's private-economy. By undermining the economic power of the remaining private sector, effective political opposition has been substantially weakened and demoralized. For example, the US Embassy reports a growing sense of hopelessness among leading businessmen, who have sent at least some family members and much of their money out of the country. At the same time, the combined effect on producers and especially consumers continues to undercut popular confidence in and support for the regime. We have increasing anecdotal reporting of consumer distress, focusing on growing criticism of Sandinista policies.

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Appendix B

Civilian Petroleum Storage Facilities in Nicaragua

Facility	Number of Tanks	Current Storage Capacity *(barrels)*	Remarks
Port of Puerto Sandino	2 2	295,473 100,000	Crude oil and fuel oil for Point Tiscuco power plant.
Managua refinery	56	821,428	Combined crude and refined oil storage.
Port of Corinto	49	401,428	An insurgent attack on 10 October 1983 destroyed or damaged 7 tanks, reducing capacity by 70,000 barrels.
Rama terminal	19	4,644	
Port of El Bluff	14	55,339	
Port of Puerto Cabezas	4	41,428	
Puerto Isabel (Puerto Benjamin Zeladon)	3	2,467	An insurgent attack on 2 October 1983 destroyed or damaged 3 tanks, reducing capacity by 7,739 barrels.
San Juan del Sur	9	3,808	
Sandino civil facility	6	4,151	
Masachapa terminal	7	96,663	This terminal, inactive since 1974, was once the primary port of entry for refined oil products.

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Figure 6. Nicaragua's Only Crude Oil Refinery, Managua. Insufficient repair and maintenance have reduced this facility's output by about one-third.

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